Claims 1, 3-11 and 13-24 stand rejected under 35 USC §103 as obvious over Japanese Unexamined Patent Application Publication No. 10-85729 (Hitachi) in view of Chen. Claim 12 stands alternatively rejected under 35 USC §103 as obvious over Hitachi in view of Chen, and further in view of Shmidt.

Reconsideration of the rejection of claims 1 and 3-24 is requested.

Applicant's undersigned attorney wishes to than Examiner Cintins for the courtesies extended him at the interview on April 11, 2002. During the interview, claim 1, as amended to include the limitations of claim 2, was discussed. It was pointed out to the Examiner during the interview that Chen is the reference relied upon either by itself or in conjunction with Hitachi in rejecting claims including the specific limitation relating to the melt index of the polymeric binder as now in claim 1. Chen describes in column 6, lines 21-23, that "[t]he preferred melt index is > 1 gram per 10 minutes (ASTM 1238 method) up to about 20 grams per 10 minutes for adsorptive and absorptive media." It was pointed out to the Examiner that Chen does not recognize the significance of the range of melt index for the polymeric binder as now recited in claim 1, even though this range resides within the broad range discussed by Chen.

The applicant has conducted testing to demonstrate the significance of the upper range limit for the melt index i.e. 2.3 g/10 min (ASTM 1238, 190°C. 15 kg Load), as explained below. More particularly, the significance of the upper range is demonstrated through experimentation by the comparison of the flow characteristics of an inventive example with the polymeric binder having a melt index in the claimed range, versus a

comparative example of similar construction but having a polymeric binder with a melt index above the claimed range.

Inventive Example

A particulate active carbon passed through a mesh of from 60-100 and a particulate active carbon passed through a mesh of 100 were mixed in a ratio of 2 to 1. To this mixture was added 15% by weight of a high-molecular porous polymer of 1.5 g/10 min (ASTM D1238, 190°C. 15 kg Load) (GUR 2105, product of Ticona GmbH). The whole mixture was heated in a mold at 200°C for one hour and then cooled, followed by adjustment of the extent of compression, whereby an active carbon block was formed with an after-set density of 0.6 g/cm^3. A nonwoven fabric was wound around an outer peripheral surface of the block, followed by attachment of caps to top and bottom portions of the block. The caps were made of polyethylene resin, at least one of which was provided with an opening. Evaluation was made of the resultant filter with regard to the flow rate at initial treatment. This evaluation was made in accordance with the test method of water treatment apparatus for household use (JIS S3201: 1999) and the water treatment apparatus (JWWA S102: 1998).

Comparative Example

A particulate active carbon passed through a mesh of from 60-100 and a particulate active carbon passed through a mesh of 100 were mixed

in a ratio of 2 to 1. To this mixture was added 15% by weight of a high-molecular porous polymer of 2.6 g/10 min (ASTM D1238, 190°C, 15 kg Load) HI-ZEX 7000FP, product of Mitsui Chemicals, Inc.). The whole mixture was heated in a mold at 200°C for one hour and then cooled, followed by adjustment of the extent of compression, whereby an active carbon block was formed with an after-set density of 0.6 g/cm^3. A nonwoven fabric was wound around an outer peripheral surface of the block, followed by attachment of caps to top and bottom portions of the block. The caps were made of polyethylene resin, at least one of which was provided with a opening. Evaluation was made of the resultant filter with regard to the flow rate at initial treatment. This evaluation was made in accordance with the test method of water treatment apparatus for household use (JIS S3201: 1999) or the water treatment apparatus (JWWA S102: 1998).

The flow rates for the two tested filter materials are indicated in the following Table 1.

TABLE 1

	Melt Index [g/10min] (ASTM D1238, 190°C, 15 kg Load)	Flow Rate at Initial Treatment [L/min] (Dynamic Water Pressure 1MPa)
Inventive Example	1.5	3.6
Comparative Example	2.6	2.7

It can be seen that a significantly higher flow rate is achieved with the Inventive Example with a polymeric binder having a melt index within the claimed range versus the Comparative Example that had a polymeric binder with a melt index outside of/above the claimed range.

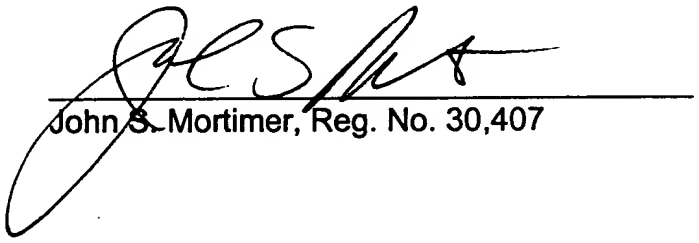
It is clear that Chen did not appreciate the significance of controlling the melt index of the polymeric binder within the range recited in claim 1, as now amended.

The remaining claims, 3-24, depend cognately from claim 1 and recite further significant structural detail to further distinguish over the cited art.

Neither Hitachi nor Shmidt, either alone or in combination with each other and/or Chen, teaches or suggests the specific claimed range for the melt index of the polymeric binder as now claimed.

Reconsideration of the rejection of claims 1 and 3-24 and allowance of the case are requested.

Respectfully submitted,



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MARKED UP VERSION OF AMENDMENTS

IN THE CLAIMS:

Please amend the claims as follows:

1. (amended) A filter for removing contaminants from water, said filter comprising:

a first porous filter part formed by setting an active carbon in a high-molecular low-melt index polymeric binder;

an inlet for directing water to be filtered to the first porous filter part, and

an outlet for directing water filtered by passage through the first porous filter part to a point of use,

wherein the polymeric binder comprises a porous polymer with a melt index of from 1.1 - 2.3 g/10 min (ASTM D1238, 190°C, 15 kg Load).

Please cancel claim 2.

5. (amended) The filter for removing contaminants from water according to claim [2] 1 wherein the first porous filter has a peripheral surface through which untreated water passes in moving from the inlet towards the outlet.

6. (amended) The filter for removing contaminants from water according to claim [2] 1 further comprising a peripheral filtering layer around the first porous filter part through which water to be filtered is passed in moving toward the first porous filter part.